

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

GEMALTO S.A.,

Plaintiff,

v.

HTC CORPORATION, HTC AMERICA,
INC., EXEDEA, INC., SAMSUNG
ELECTRONICS CO., LTD., SAMSUNG
TELECOMMUNICATIONS AMERICA
LLC, MOTOROLA MOBILITY, INC., and
GOOGLE INC.,

Defendants.

Civil Action No. 6:10-CV-561-LED

JURY TRIAL DEMANDED

**DEFENDANTS' RESPONSE TO PLAINTIFF GEMALTO S.A.'S
OBJECTIONS TO THE MAGISTRATE JUDGE'S FEBRUARY 25, 2013
REPORT AND RECOMMENDATION [DKT. NO. 433]**

NOTES ON CITATIONS

1. The patents-in-suit, U.S. Patent. Nos. 6,308,317 (“the ‘317 Patent”), 7,117,485 (“the ‘485 Patent”), and 7,818,727 (“the ‘727 Patent”) share a common specification. (Dkt. 244 at 2, n. 2.) References to the patents-in-suit are indicated by column and line number, or by claim number. Unless otherwise noted, all citations refer to the ‘317 Patent. A citation to “3:15” therefore refers to column 3, line 15 of the ‘317 Patent.
2. References to Judge Love’s Memorandum Opinion and Order (Dkt. 242) are indicated by “Markman Order” followed by the page number being cited. “Markman Order 8” therefore refers to page 8 of the *Markman* Order.
3. References to the Report and Recommendation of United States Magistrate Judge (Dkt. 433) are indicated by “Report” followed by the page number being cited. “Report 4” therefore refers to page 4 of Judge Love’s Report and Recommendation.
4. References to Gemalto S.A.’s Objections to the Magistrate Judge’s February 25, 2013 Report and Recommendation are indicated by the abbreviation “Obj.” followed by the page number being cited. “Obj. 7” therefore refers to page 7 of Gemalto’s Objections.
5. References to the transcript of the Motions Hearing held on February 12, 2013 are indicated by the abbreviation “Tr.” followed by the page and line numbers being cited. “Tr. 5:3-6” therefore refers to page 5, lines 3 through 6 of the Motions Hearing transcript.
6. References to Defendants’ Motion For Summary Judgment Of Non-Infringement Of All Asserted Claims is referred to herein as the “Motion” and cited as “Mot.” (Dkt. 306.) A citation to “Mot. 8” therefore refers to page 8 of Docket 306.
7. References to exhibits attached to the Motion are cited herein as with the prefix “Mot.” Therefore, for example, “Mot. Ex. A.” refers to Exhibit A attached to Defendants’ Motion For Summary Judgment.

8. The declarations of Messrs. David Boldt, Rhed Jao, Hakryoul Kim, and Brian Swetland submitted with Defendants' Motion For Summary Judgment at Docket 306 are cited by surname of the declarant. For example, a citation to "Boldt ¶ 4" thus refers to paragraph 4 of the Declaration of David Boldt, submitted with Motion.
9. References to Plaintiff Gemalto S.A.'s Opposition To Defendants' Motion For Summary Judgment Of Non-Infringement is referred to herein as the "Opposition" and cited as "Opp." (Dkt. 328.) A citation to "Opp. 8" therefore refers to page 8 of Docket 328.
10. References to exhibits attached to the Opposition are cited herein as with the prefix "Opp." Therefore, for example, "Opp. Ex. A." refers to Exhibit A attached to Plaintiff's Opposition.
11. The declarations of Dr. Hugh Smith and Mr. Jeremy Andrus submitted with Plaintiff's Opposition at Docket 328 are cited by surname of the declarant. For example, a citation to "Smith Decl. ¶ 4" thus refers to paragraph 4 of the Declaration of Dr. Hugh Smith, submitted with Plaintiff's Opposition.
12. References to Defendants' Reply In Support of Their Motion For Summary Judgment Of Non-Infringement are cited as "Reply," (Dkt. 339) and references to exhibits attached to the Reply are cited herein as with the prefix "Reply." Therefore, for example, "Reply Ex. T." refers to Exhibit T attached to Defendants' Reply.
13. References to Plaintiff Gemalto S.A.'s Sur-reply in Opposition to Defendants' Motion For Summary Judgment Of Non-Infringement are cited as "Sur-reply." (Dkt. 349.) A citation to "Sur-reply 8" therefore refers to page 8 of Docket 349.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
STATEMENT OF FACTS	2
I. THE ACCUSED PRODUCTS AND THE PATENTS-IN-SUIT	2
II. THE CLAIM CONSTRUCTION ORDER	3
A. The <i>Markman</i> Order Required that Microcontrollers Have “All Program Memory” on the Same Chip as the CPU.	3
B. The <i>Markman</i> Order Found That an Integrated Circuit Card is a Card with a Microcontroller on It.	5
C. The <i>Markman</i> Order Found That a “Programmable Device” is a Microcontroller.	6
III. AFTER THE COURT’S CLAIM CONSTRUCTION EVISCERATED ITS INFRINGEMENT CLAIMS, PLAINTIFF CONCOCTED A NEW THEORY	6
IV. THE REPORT AND RECOMMENDATION	7
A. Judge Love Found That The Accused Devices Do Not Literally Meet The “All Program Memory” Element Required By All Asserted Claims	7
B. Judge Love Found That The Accused Devices Do Not Meet The “All Program Memory” Limitation Under the Doctrine of Equivalents.	8
ARGUMENT	9
I. AS JUDGE LOVE CORRECTLY FOUND, THE ACCUSED PRODUCTS DO NOT LITERALLY MEET THE “ALL PROGRAM MEMORY” LIMITATION	9
A. The undisputed facts show the accused products do not have “all program memory” on the same substrate as the CPU.	9
B. Gemalto ignores the plain meaning of “all program memory.”	10
C. Gemalto’s Attempts to Reargue Claim Construction Are Without Merit.	12
D. Gemalto’s Interpretation of “All Program Memory” Would Improperly Include Microprocessors.	13

II.	AS JUDGE LOVE CORRECTLY FOUND, THE ACCUSED PRODUCTS DO NOT INFRINGE THE CLAIMS UNDER THE DOCTRINE OF EQUIVALENTS	16
A.	Gemalto’s Improperly Asserted Equivalents Argument is a Red Herring	16
B.	Gemalto Presents No Evidence to Support its Equivalents Argument	18
C.	Gemalto’s Objections Fail to Demonstrate Any Error in Judge Love’s Rejection of its Equivalents Argument.	19
D.	Plaintiff’s Cited Caselaw Is Inapposite.....	19
III.	AS JUDGE LOVE CORRECTLY FOUND, THE ACCUSED PRODUCTS DO NOT INDIRECTLY INFRINGE THE CLAIMS	21
IV.	PLAINTIFF’S EXPERT DECLARATIONS DO NOT CREATE A GENUINE ISSUE OF MATERIAL FACT	22
	CONCLUSION.....	22

TABLE OF AUTHORITIES

	<u>Page</u>
<u>Cases</u>	
<i>Aquatex Industries, Inc. v. Techniche Solutions</i> , 479 F.3d 1320 (Fed. Cir. 2007).....	16, 17, 18
<i>Brilliant Instruments, Inc. v. GuideTech, LLC</i> , 707 F.3d 1342 (Fed. Cir. 2013).....	19, 20, 21
<i>Deere & Co. v. Bush Hog, LLC</i> , 703 F.3d 1349 (Fed. Cir. 2012).....	19, 20
<i>GTX Corp. v. Kofax Image Prod. Inc.</i> , 571 F. Supp. 2d 742 (E.D. Tex. 2008).....	18
<i>Invitrogen Corp. v. Clontech Labs</i> , 429 F.3d 1052 (Fed. Cir. 2005).....	22
<i>Novartis Corp. v. Ben Venue Labs</i> , 271 F.3d 1043 (Fed. Cir. 2001).....	22
<i>Texas Instruments Inc. v. Cypress Semiconductor Corp.</i> , 90 F.3d 1558 (Fed. Cir. 1996).....	18

INTRODUCTION

Judge Love correctly found that Defendants could not infringe any asserted claim because none of their accused products include both the CPU and “all program memory” on a “single semiconductor substrate” as required by the Court’s *Markman* Order. Plaintiff and Defendants agree on the relevant facts dispositive to this issue: in each accused product, the CPU includes cache memory but remains separate from RAM and Flash memory. Under this Court’s *Markman* Order, the claims require both the CPU and “all program memory” to be on a “single semiconductor substrate.” Seeking to survive summary judgment, Plaintiff raised a new argument alleging that “all program memory” did not include all memory required to run programs, but instead was only the cache memory built into the CPU – even though Plaintiff admitted that without RAM and Flash memory, the accused devices would not work at all. Based on these undisputed facts, Judge Love properly concluded that, “by virtue of the fact that Defendants’ devices store program instructions off-chip and access those off-chip instructions to run the accused applications, they cannot literally infringe.” (Report 9.) Judge Love similarly found no infringement under the doctrine of equivalents.

Plaintiff’s Objections cannot overcome Judge Love’s findings. While ostensibly attempting to criticize Judge Love’s application of the Court’s claim construction to the accused products (Obj. 5-6), Plaintiff actually spends the majority of its brief both implicitly and even explicitly making already-rejected arguments that the Court’s claim constructions were incorrect. (*See* Obj. 7, 28 n. 5.) The Court has already decided this issue in Judge Love’s Claim Construction Order and this Court’s Order adopting those constructions. Plaintiff cannot reargue claim construction on summary judgment. Next, Plaintiff presents its argument, newly asserted after its Objections to the Court’s constructions failed, that “all program memory” refers not to all program instructions stored in memory, but instead only to “cache” memory on the CPU. As

Judge Love correctly noted, however, Plaintiff's second argument again seeks to reargue the *Markman* proceedings: "[i]n the context of the Court's construction, 'all program memory' means memory permanently holding all program instructions necessary for execution of the compressed application, which includes main memory storage for application code." (Report 5.) Both Gemalto's literal and equivalents theories, which rely on the cache memory, fail to account for this required element under the Court's constructions. Instead, as Judge Love properly found, these arguments seek to eliminate this requirement entirely. (Report, 8, 10.)

Gemalto's Objections make no effort to address Judge Love's reasoning and spend less than a page discussing the Court's *Markman* Order. Instead, Gemalto presents already-rejected intrinsic evidence and irrelevant extrinsic evidence in an improper effort to reargue claim construction. The Court should overrule Gemalto's Objections and adopt Judge Love's Report and Recommendations.

STATEMENT OF FACTS

I. THE ACCUSED PRODUCTS AND THE PATENTS-IN-SUIT

Plaintiff Gemalto accuses various Android smartphones and tablets of infringing the asserted claims. Each accused product uses the Dalvik virtual machine ("DVM" or "Dalvik") to execute at least some applications. (Mot. 8.) When the devices are off, the only copy of either Dalvik or any applications are in non-volatile Flash memory. (*Id.*) When the devices are on, Dalvik and its executed applications run from volatile RAM memory. (*Id.*) If the accused products lacked either Flash or RAM memory, they could not boot Android, let alone use Dalvik to execute any applications. (*Id.*) Plaintiff admits this, having itself argued that "All program instructions executed by the central processing unit . . . must be loaded from the off-chip RAM or Flash data memory . . . to be executed or run." (Dkt. 265-1 at 2 (emphasis added).) Gemalto further admitted in response to Defendants' Request for Admissions that "the chipset containing

the central processing unit on the ACCUSED DEVICES requires external memory.” (Reply Ex. T at 11.)

Gemalto asserts that Defendants infringe claims 1, 4, and 5 of U.S. Patent No. 6,308,317 (“the ‘317 Patent”), claims 38 and 39 of U.S. Patent No. 7,117,485 (“the ‘485 Patent”), and claim 3 of U.S. Patent No. 7,818,727 (“the ‘727 Patent”). “The patents-in-suit are generally directed toward methods of implementing a high level programming language such as Java on resource constrained devices such as smartcards,” *i.e.*, a plastic card with an embedded microcontroller. (Markman Order 1, 13; *see also* 1:16-19; 1:55-61; 2:46-48; 7:57-59.) Programming languages like Java usually run on microprocessor-based computers, which access relatively large amounts of memory. (Markman Order at 8; *see also* 1:55-57.) Microcontrollers, in contrast, “have limited access to memory.” (Markman Order 8; *see also* 1:62-2:10). The patents in-suit thus “teach a method for converting Java byte codes into byte codes that minimize the computing resources consumed by the application and the Java Virtual Machine so that the application can run within the constrained environment of a smartcard.” (Markman Order 2; *see also* 8:20-22, 8:35-40, Fig. 2.)

II. THE CLAIM CONSTRUCTION ORDER

A. The Markman Order Required that Microcontrollers Have “All Program Memory” on the Same Chip as the CPU.

The Court’s *Markman* Order first considered “microcontroller,” construing it as “a single semiconductor substrate integrating electronic circuit components that includes a central processing unit and all program memory making it suitable for use as an embedded system.” (Markman Order 11.) The Court found that “[i]n a microcontroller, the amount of each kind of memory available is constrained by the amount of space on the integrated circuit used for each kind of memory.” (*Id.* 8; *see also* 2:14-16; 2:2-5.) For example, the typical microcontroller at the

time of the alleged invention was limited to “0.1 to 2.0 KB of RAM, 2 to 8 KB of EEPROM, and 8 to 56K of ROM.” (Markman Order 9, quoting 2:26-34.) The Court noted that “unlike microprocessors, microcontrollers have limited access to memory”:

Microcontrollers differ from microprocessors in many ways. For example, a microprocessor typically has a central processing unit that requires certain external components (e.g., memory, input controls and output controls) to function properly. A typical microprocessor can access from a megabyte to a gigabyte of memory, and is capable of processing 16, 32, or 64 bits of information or more with a single instruction. In contrast to the microprocessor, a microcontroller includes a central processing unit, memory and other functional elements, all on a single semiconductor substrate, or integrated circuit (e.g., a “chip”). As compared to the relatively large external memory accessed by the microprocessor, the typical microcontroller accesses a much smaller memory. A typical microcontroller can access one to sixty-four kilobytes of built-in memory, with sixteen kilobytes being common.

(Markman Order 8, quoting 1:62 – 2:10.) Accordingly, “an interpretation of microcontroller that permits access to off chip memory would eviscerate the distinction between operating high level programming language on an integrated circuit card or microcontroller and the ‘conventional platforms’ that existed at the time of the invention.” (Markman Order 9.)¹

The Court thus concluded that microcontrollers may use external memory for some purposes but not others. Specifically, “a microcontroller may access off chip memory to store and retrieve data stored in a ‘static RAM.’” (Markman Order 10 (emphasis added).) But a

¹ The Court also looked to the file histories of the patents, finding that “[t]he applicants repeatedly distinguished between existing microprocessor systems that had the ability to run high level languages at the time of the invention and microcontrollers such as smartcards or integrated circuit cards.” (Markman Order 9.) For example, in appealing a rejection of the ‘485 Patent to the BPAI, the applicants highlighted the difficulty of fitting a typical Java Virtual Machine requiring over 1MB of memory onto a microcontroller with only 0.1 to 2.0 KB of RAM. (*Id.*, citing Dkt. 180-5 at GEM3766, 2:26-34.) During the reexamination of the ‘317 Patent, the applicants noted that “[t]he Java run time environment, the JRE, requires a system that has a minimum of 32 MB of memory.... However, in 1996 smart cards only had 512 bytes, not kilobytes or megabytes, just 512 bytes of RAM and 4K bytes of EEPROM.” (Markman Order 9, quoting Dkt. 180-7 at GEM4515.) The Court concluded that “for the patentee, one of the key aspects of the invention disclosed in the patents-in-suit is its ability to operate in an environment with a finite amount of memory.” (Markman Order 9.)

microcontroller must “possess sufficient memory to run the Java code in accordance with the patentee’s invention.” (*Id.* (emphasis added).) Accordingly, “[t]he Court’s construction does not . . . prevent a microcontroller from accessing any external memory,” but “neither the specification nor the extrinsic record supports the conclusion that a microcontroller can function with program memory located off chip.” (*Id.* 10-11 (emphasis added).)

B. The Markman Order Found That an Integrated Circuit Card is a Card with a Microcontroller on It.

Regarding claims teaching an “integrated circuit card,” “[t]he essential dispute between the parties is whether the ‘integrated circuit card’ must contain all program memory and whether the integrated circuit card is a ‘card’ or can also be a ‘base.’” (Markman Order 12.) Again, the Court found that “an ‘integrated circuit card’ must have its components on a single semiconductor substrate.” (*Id.* 14.) The Court noted that “Plaintiff concedes in its opening claim construction brief that the ‘Integrated Circuit Card Claims . . . narrowly refer to a specific type of device that includes a microcontroller and can use high level programming language – *i.e.*, an integrated circuit card, as shown in the embodiment in Figure 21.” (*Id.* (quoting Gemalto’s Claim Construction Brief (Dkt. 163) at 27-28).) The Court further quoted Gemalto’s own argument that “[t]he prosecution history shows that the ‘317 patent was always prosecuted as including two classes of claims: a broad set directed to microcontrollers on devices generally, and a narrower set directed to microcontrollers on integrated circuit cards specifically.” (Markman Order 14-15, quoting Dkt. 163 at 28.) Accordingly, Judge Love rejected Gemalto’s attempt to construe “integrated circuit card” as anything broader than a specific type of microcontroller-based device.

C. The *Markman* Order Found That a “Programmable Device” is a Microcontroller.

Finally, the Court found that “programmable device” is not a term of art, and thus must be defined in reference to the specification. (Markman Order 16.) Because “the patentee repeatedly distinguished the invention from high level programming language operating on traditional microprocessors,” the construction of “programmable device” cannot include microprocessors. (*Id.*) The Court thus construed “programmable device” in the same manner as “microcontroller”; that is, “a single semiconductor substrate integrating electronic circuit components that includes a central processing unit and all program memory making it suitable for use as an embedded system.” (*Id.* 16-17.) Gemalto does not dispute that the *Markman* Order effectively construes “programmable device” as a “microcontroller.” (Obj. 22.)

III. AFTER THE COURT’S CLAIM CONSTRUCTION EVISCERATED ITS INFRINGEMENT CLAIMS, PLAINTIFF CONCOCTED A NEW THEORY

Plaintiff objected to the Court’s constructions of “microcontroller,” “integrated circuit card” and “programmable device” and agreed to stay discovery until the Court resolved its Objections. (Dkt. 244, 246, 247.) Plaintiff argued that requiring “all program memory” to be on the same semiconductor substrate as the CPU “imposes a disclaimer of claim scope that dramatically limits Gemalto’s Java conversion technology to only devices having ‘all program memory’ in a single location, that is, on a single semiconductor substrate, thereby excluding from the scope of the claims devices that use any amount of external (‘off-chip’) program memory.” (Dkt. 249, 1 (emphasis in original).) Hoping to salvage its claim constructions, Plaintiff thus admitted that the Court’s constructions exclude devices using “any” off-chip program memory. The Court overruled these Objections in full. (Dkt. 251.)

As soon as the Court overruled its objections, Plaintiff turned on a dime, concocting a new theory that contradicted the Court’s construction, the intrinsic evidence, and its own prior

statements. Plaintiff argued that a microprocessor's "cache" is somehow "all program memory," even though Plaintiff admits that the accused devices need more than cache memory to run programs. Gemalto's "cache memory" argument was "entirely new to the Court and was not raised as a dispute during claim construction." (Report 5.) In the alternative, Plaintiff recasted its argument under the doctrine of equivalents by seeking to equate "all program memory" on a microcontroller with off-chip memory—*i.e.*, memory not on the microprocessor—in the accused devices.

IV. THE REPORT AND RECOMMENDATION

A. Judge Love Found That The Accused Devices Do Not Literally Meet The "All Program Memory" Element Required By All Asserted Claims

As Judge Love noted, "there is no real dispute raised regarding [the Accused Devices'] operation." (Report 8.) Rather, the "fundamental dispute raised has already been resolved by the Court through its claim construction." (*Id.* 5.) "In the context of the Court's construction, 'all program memory' means memory permanently holding all program instructions necessary for execution of the compressed application, which includes main memory storage for application code (*e.g.*, compiled Java byte code)." (*Id.*) Judge Love recounted the undisputed facts that show Plaintiff's new cache theory was precluded by the Court's claim construction. Cache memory only "temporarily holds instructions on-chip for quick execution," but "does not hold all program instructions and may need to access off-chip main memory to execute the application," and thus "there is no dispute that cache memory only temporarily holds program instructions loaded from main memory located 'off-chip.'" ² (*Id.* 6.) Since "memory space permanently holding all program instructions" is "[a]lso necessary for execution," "on-chip memory space

² As Judge Love also notes, "Gemalto's expert acknowledges that cache memory does not hold all program instructions and may need to access off-chip main memory to execute the application." (Report 6).

only temporarily holding program instructions loaded from off-chip main memory does not constitute ‘all program memory.’” (*Id.* 6-7.) To the contrary, persistent memory is “necessary for execution of the compressed application,” and must be included in “all program memory.” (*Id.*)

Since the accused devices “require ‘off chip memory to run the accused Dalvik and Android applications,” Judge Love found “the undisputed operation of Defendants’ accused devices does not meet the claim limitation” requiring “all program memory” on the same chip as the CPU. (Report 8-9.) “[B]y virtue of the fact that Defendants’ devices store program instructions off-chip and access those off-chip instructions to run the accused applications, they cannot literally infringe.” (*Id.* 9.)

B. Judge Love Found That The Accused Devices Do Not Meet The “All Program Memory” Limitation Under the Doctrine of Equivalents.

In Opposing Defendants’ motion for summary judgment, Gemalto argued—in its newly presented alternative equivalents theory—that since “‘97% of the time the instruction code to be executed for a given application is stored in the on-chip cache memory before it is requested or needed by the CPU,’ . . . that scenario represents an insubstantial difference.”³ (*Id.* 9-10.) But as Judge Love noted when analyzing literal infringement, even if 100% of code was stored first on the cache before execution, the accused devices could not infringe because they also require off-chip memory to execute. (*Id.* 5-9.) Thus Gemalto’s “97%” argument was irrelevant, because it did not explain how the still-required off-chip memory could infringe. (*Id.* 9-10.) Finally, Judge Love noted that “[t]he Court’s claim construction establishes a specific structural requirement that defines an integrated circuit card as used in the patents-in-suit”—that “permanent storage of

³ As detailed in Defendants’ Rule 56(c)(2) objections, Plaintiff’s theory and evidence should be rejected as it was not disclosed in either Plaintiff’s operative contentions or expert reports.

program instructions [be] on-chip in a main memory.” (*Id.* 10 (emphasis added).) Gemalto’s argument reads this permanent storage requirement entirely out of the claims. (*Id.*) This elimination of an entire structural element “cannot be merely an insubstantial difference,” rendering “Gemalto’s theory of equivalence [] impermissible.” (*Id.*)

ARGUMENT

I. AS JUDGE LOVE CORRECTLY FOUND, THE ACCUSED PRODUCTS DO NOT LITERALLY MEET THE “ALL PROGRAM MEMORY” LIMITATION

A. The undisputed facts show the accused products do not have “all program memory” on the same substrate as the CPU.

Under the Court’s *Markman* Order, all asserted claims require a “single semiconductor substrate” that contains both a “central processing unit” and “all program memory.”⁴ As Judge Love found, “as to the Defendants’ accused devices there is no real dispute raised regarding their operation.” (Report 8.) Based on the undisputed operation of the accused devices, Gemalto cannot show that “all program memory” is on the same substrate as the CPU.

Plaintiff admits that the accused devices require “off chip” memory to run the accused Dalvik and Android applications. (Dkt. 265-1 at 2.) Each Accused Device has a microprocessor with a central processing unit (“CPU”). They also have Flash and RAM memories, each on different semiconductor substrates from the microprocessor. (Report 8.) Together with the microprocessor, the Flash and RAM memories store and run the accused Dalvik VM and applications. (Boldt ¶ 5; Jao ¶ 5; Kim ¶ 5; Swetland ¶¶ 6, 12.) Indeed, as Plaintiff admits, “[a]ll program instructions (and all byte codes of the converted Java application to be interpreted by

⁴ All presently asserted claims require either an “integrated circuit card,” which the Court construed as “a card containing a single semiconductor substrate having a central processing unit and all program memory” or a “programmable device,” which the Court construed as “a single semiconductor substrate integrating electronic circuit components that includes a central processing unit and all program memory making it suitable for use as an embedded system.” (*Markman* 15, 17.) On February 14, 2013, Gemalto dropped claim 58 of the ‘317 Patent from the litigation, which was the last remaining claim to recite a “microcontroller.” (Dkt. 413.)

the Dalvik Virtual Machine into program instructions) must be loaded from the off-chip RAM or Flash data memory into the on-chip cache memory to be executed or run.” (Dkt. 265-1 at 2 (emphases added); *see also, e.g.*, Mot. Ex. I, at 1–3; Report 9.)

As Judge Love properly found, due to their “storing program instructions off-chip in main memory, the undisputed operation of Defendants’ accused devices does not meet the claim limitation” of a “a single semiconductor substrate having a central processing unit and all program memory.” (Report 8-9.) In other words, “by virtue of the fact that Defendants’ devices store program instructions off-chip and access those off-chip instructions to run the accused applications, they cannot literally infringe.” (*Id.*)

B. Gemalto ignores the plain meaning of “all program memory.”

Plaintiff does not even attempt to provide evidence under the plain meaning of the Court’s “all program memory” construction. Nor could it. As even Gemalto’s counsel conceded, the “plain interpretation of program memory” is memory used by the program. (Tr. 25:22-25.)⁵

Instead, Gemalto asserts that “all program memory” is somehow limited to the memory from which a central processing unit fetches program instructions when executing that program at any given instant. Thus, Gemalto contends that the “all program memory” limitation is met exclusively by the “cache memory” employed on the Accused Products. (Report 5, Obj. 5.) As

⁵ Even the inventors of the Asserted Patents recognize that off-chip RAM and Flash storing program instructions in the Accused Devices is program memory. (Mot. Ex. M, Krishna at 206:14–22 (“Q. So if we look at the totality of all of the program memory that is required to run, for example, the Dalvik virtual machine in an Android smartphone, will you be looking at not only the on-cache memory but also the external flash memory as well as the external RAM memory, true? . . . A. Probably, yes. A totality, as you said. Sorry, yes.”) (emphases added)); Mot. Ex. N Montgomery at 42:17–43:8 (“So the other memory locations which could contain program instructions, even in an on-chip cache environment, can include, for example, RAM, ROM or flash memory? A. That’s right. . . . Q. If -- if those locations contained program instructions, you would consider that to be part of the program memory? A. Yes.”) (emphases added).)

the Court properly found, however, cache memory can only *temporarily* store a *portion* of the executed program instructions. (Report 6, Obj. 18-19.) There is no dispute that cache memory cannot hold all program instructions. (Report 6, Obj. 19.) Nor is there any dispute that cache memory cannot permanently store program instructions at all. (Report 7, Obj. 5.) Accordingly, “by virtue of the fact that Defendants’ devices store program instructions off-chip and access those off-chip instruction to run the accused applications, they cannot literally infringe.” (Report 9.)

Nevertheless, Gemalto contends that, “[u]nder the Court’s construction, a microcontroller need only possess sufficient memory to run the Java code in accordance with the patentee’s invention,” and that “the patents-in-suit disclose an ‘integrated circuit card [that] contains the memory necessary to execute the condensed high level program.’” (Obj. 22.) But as Judge Love found in his Report and Recommendation, “memory space permanently holding all program instruction” is “[a]lso necessary for execution.” (Report 7 (emphasis added).) Again, Gemalto has admitted that in the accessed products “[a]ll program instructions executed by the central processing unit [] must be loaded from the off-chip RAM or Flash data memory [] to be executed or run.”⁶ (Dkt. 265-1 at 2 (emphasis added).)

Gemalto also attempts to muddy the boundary between “applications” and “data.” (Obj. 18-19.) The *Markman* Order explains that a microcontroller may access some external memory,

⁶ Gemalto asserts that “the Magistrate Judge appears to have concluded that the ‘all program memory’ limitation is met only by permanent, as opposed to volatile cache, memory.” (Obj. 26.) Not so. Judge Love did not conclude that “only” permanent memory is included in “program memory,” only that it is not the sole component: “on-chip memory space only temporarily holding program instructions loaded from off-chip main memory does not constitute ‘all program memory’ necessary for execution. Also necessary for execution is memory space permanently holding all program instructions.” (Report 6-7 (emphasis added).) Gemalto’s attempt to distinguish between volatile and non-volatile memory is thus a red herring—both are needed to execute programs.

e.g., “off chip memory to store and retrieve data.” (Markman Order at 10 (emphasis added).) Latching onto this language, Plaintiff attempts to argue that off-chip program instructions are somehow the “data” referred to in the *Markman* Order. (Obj. 27.) But as Judge Love properly found, “this characterization of ‘data’ is not consistent with the Court’s claim construction,” under which “the code of an application program (i.e. program instructions, such as Java byte code) is expressly distinguished from data used by the application program.” (Report 7 (parentheses in original).) Although “a microcontroller may access off chip memory to store and retrieve data stored in a ‘static RAM’” the microcontroller still must “possess sufficient memory to run the Java code in accordance with the patentee’s invention.” (Markman Order 10 (emphasis added).) As Judge Love noted, the patents themselves distinguish between application memory and data memory, with memory for the Java code falling firmly into the former. (Report 7, *citing* 16:1-4, 18:13-24.) Accordingly, “an interpretation of microcontroller that permits access to off chip memory would eviscerate the distinction between operating high level programming language on an integrated circuit card or microcontroller and the ‘conventional platforms’ that existed at the time of the invention.” (*Markman* Order 9.) Thus, as Judge Love found, “[u]nder the Court’s construction, the code of an application program (*i.e.* program instructions, such as Java byte code) is expressly distinguished from data used by the application program.” (Report 7.)

C. Gemalto’s Attempts to Reargue Claim Construction Are Without Merit.

Much of Gemalto’s Objections simply reargue points it already lost on claim construction. For example, Gemalto argues that “there is no disclaimer with respect to embodiments that utilize external memory for storing program instructions.” (Obj. 25.) But Gemalto already presented this argument to the Court in its failed Objections to Judge Love’s constructions. (*See* Dkt. 244 at 2) (“[T]here is no clear disclaimer of external or ‘off chip’

program memory.”) As Defendants noted in response to that brief, “no ‘disclaimer’ is needed [since] microcontrollers are defined by their inability to access external program memory.” (Dkt. 245 at 8.)

Similarly, Gemalto argues that off-chip memory is “specifically claimed in asserted claim 4 and specifically described in the specification” (Obj. 25), but it already presented this argument in its failed Objections to the *Markman* Order as well. (Dkt. 244 at 6). Gemalto also contends that “granting Defendants summary judgment of non-infringement would require the Court to dramatically limit the scope of the claims.” (Obj. 27.) But once again, Gemalto already made this plea in appealing Judge Love’s *Markman* Order: “[the word ‘all’] dramatically limits Gemalto’s Java conversion technology to only devices having ‘all program memory’ in a single location [] thereby excluding from the scope of the claims devices that use any amount of external (‘off-chip’) program memory.” (Dkt. 249 at 1.)

D. Gemalto’s Interpretation of “All Program Memory” Would Improperly Include Microprocessors.

Gemalto argues that its attempt to read “all program memory” as encompassing only cache memory does not collapse the distinction between microprocessors and microcontrollers.⁷

⁷ At the hearing, Gemalto’s counsel repeatedly urged Judge Love to ignore the distinction between a microprocessor and a microcontroller:

THE COURT: So the way you're describing this with the controller, the integrated circuit card possessing this execution memory and storage memory, storing the instructions off the chip, off external memory, how is that different from what existed in the art at the time? In other words, what's different about that than simply a -- a microprocessor that requests instructions and then executes them?

MR. COTE: We have to stop and we will show you in a minute and look at actually what the invention's about. The invention is not about is it a microprocessor or a microcontroller. The invention was about how do I get this Java program that's on a desktop PC that at the time used a typical microprocessor. How do I get that to run on something smaller, resource

(Obj. 26-27.) But Gemalto does not dispute that microprocessors in the mid-1990's used cache memory. (Mot. Ex. Q, Ex. R, Ex. S; *see also* Sur-reply 8: "it does not matter that some 'microprocessors in 1996 did have cache memory.'") Thus, Gemalto's interpretation of "all program memory" on the claimed microcontrollers would necessarily encompass microprocessors. Instead, Plaintiff argues that the applicants acted as lexicographers in defining a "typical microprocessor" as something that, unlike existing microprocessors, did not have cache memory. (Obj. 27; Opp. 1, 9, 16.) In other words, Plaintiff argues the applicants, as lexicographers, defined a "typical microcontroller" as being atypical. Plaintiff's nonsensical reading has no support in the intrinsic evidence, which dictates the opposite conclusion. (*Markman*, 6–11.) Indeed, Plaintiff has acknowledged that by referring to "typical microprocessors," the applicants were referring to microprocessors then "in existence":

[I]n discussing the benefits afforded by their inventions, the inventors also explained what they believe to be the differences between 'microprocessors' and 'microcontrollers' *in existence* in the mid-1990s. One such difference was that a 'typical' microprocessor has access to 'relatively large external memory,' while a 'typical' microcontroller usually has access to 'a much smaller memory.'

(Obj. 10; (emph. added) Opp., 8; *see also* Dkt. 170 at 2-3, Dkt. 191-1 at ¶ 13, Dkt. 163 at 18, Dkt. 218 at 1, Dkt. 244 at 6, Dkt. 249 at 2.) By its own admission, Plaintiff's assertion that the applicants were somehow their own lexicographers is not credible.

constrained. How do I get that Java program that otherwise -- how do we get it to run. That's the invention. It's not whether it's a microprocessor it's used for or a microcontroller.

(Tr. 28:23 - 29:15 (emphasis added); *see also id.* 31:4-5 ("the invention is not about a piece of hardware"), 47:11-12 ("So the invention's not about microcontroller and microprocessor."), 48:8-10 ("and really, this is the essence of the invention, conversion, not whether it's a microcontroller or microprocessor").) Gemalto's attempt to disregard a claim term that was construed by the Court and heavily emphasized in the intrinsic evidence is without merit. Indeed, the Court's *Markman* Order already found that "the term 'microcontroller' [] breathes life and meaning into the claim." (*Markman* Order 12.)

Plaintiff argues that language in the provisional application somehow provides the applicants' alleged atypical definition of a "typical microprocessor." But this language does not refer to the lack of cache memory in a microprocessor, as opposed to the lack of RAM and Flash memory in a microcontroller, as extensively discussed in the intrinsic evidence. Further, to the extent that this language is relevant (it is not), the applicants removed that language from the non-provisional applications.⁸ In any event, the *Markman* Order did not use a specialized and incorrect definition of "microprocessor" in cautioning against eviscerating the distinction between microcontrollers and microprocessors (Markman Order 8-9), rendering Gemalto's "lexicographer" argument irrelevant.

Gemalto further argues the distinction between microprocessors and microcontrollers is preserved by "the limitation that the semiconductor be suitable for use 'as an embedded system.'" (Obj. 27.) But the *Markman* Order already found that microcontrollers must be distinguished from microprocessors based on "access to off chip memory," not solely based on use in an embedded system. (Markman Order 8-11). In addition, the claim construction makes clear that the microcontroller's suitability for use as an embedded system is a consequence of the "all program memory" limitation, not a separable element: "the Court construes 'programmable device' as 'a single semiconductor substrate integrating electronic circuit components that includes a central processing unit and all program memory making it suitable for use as an embedded system.'"⁹ (*Id.* 17.)

⁸ Compare Opp. Ex. 2 -4376 with '317 patent 1:62-66.

⁹ Note that only asserted claim 3 of the '727 patent requires a "programmable device," whose construction states that the substrate must be "suitable for use as an embedded system"—the other five asserted claims require an "integrated circuit card" whose construction recites no such limitation. (*Compare* Order 15, 17.) Gemalto's attempt to characterize the accused Android Devices as "embedded systems" (*e.g.*, Obj. 3) is also irrelevant. The Court's construction of programmable device requires that the "single semiconductor substrate" itself be "suitable for use as an embedded system, not that the substrate be used in embedded systems.

At bottom, Gemalto's Objections consist of nothing more than an impermissible attempt to reargue claim construction by asserting that Judge Love does not understand his own *Markman* Order. This does not pass the straight-face test and should be rejected.

II. AS JUDGE LOVE CORRECTLY FOUND, THE ACCUSED PRODUCTS DO NOT INFRINGE THE CLAIMS UNDER THE DOCTRINE OF EQUIVALENTS

To prevail under DOE, Gemalto must "either (1) demonstrate an insubstantial difference between the claimed invention and the accused product or method; or (2) satisfy the function, way, result test." (Report 9 (citing *Aquatex Industries, Inc. v. Techniche Solutions*, 479 F.3d 1320, 1326 (Fed. Cir. 2007) (additional citation omitted)). Applying each of these standards, Judge Love properly concluded that Gemalto cannot meet either one. (*Id.* at 9-11.)

Gemalto identifies no disputed issues of material fact regarding its DOE theory to overturn Judge Love's holding.

A. Gemalto's Improperly Asserted Equivalents Argument is a Red Herring

Plaintiff's operative infringement contentions merely contended that using off-chip memory was equivalent to using on-chip memory. (*See, e.g.*, Mot. Ex. J at 1-2). Apparently recognizing the failures of its operative infringement contentions upon which Defendants moved, Plaintiff concocted a new equivalents argument that a CPU receiving the program instructions it executes directly from the on-chip cache 97% of the time is insubstantially different than receiving those instructions from cache 100% of the time.¹⁰ (Opp. 22, Report 9-10, Obj. 28.) Even if considered, Plaintiff's equivalents theory again seeks to evade the "all program memory" requirement by improperly inserting a temporal element (not present anywhere in the claims or intrinsic evidence) and focusing on what code is executed by a CPU at any given time. (Opp., 5-

Gemalto has not presented any evidence that the accused single semiconductor substrate—the microprocessor—is "suitable for use as an embedded system."

¹⁰ *See* FN 3.

6, 22-23, Report 9-10, Obj. 28.) As stated above in relation to Plaintiff's literal infringement argument, the direct source of the instruction used by the CPU at any particular instant has nothing to do with the claims as construed. Thus, whether 97% (or 1%, 25%, 50%, or 99%) of the instructions happen to reside in cache is equivalent to 100% residing in cache has nothing to do with the Court's construction. This is just another of Plaintiff's attempts to redo and miscast the Court's construction in a manner that seeks to eviscerate the distinction between microcontrollers and microprocessors. (Markman Order 9–10.)

Gemalto's DOE argument also fails because it vitiates the distinction between a microprocessor and a "microcontroller"—and by extension an "integrated circuit card" and a "programmable device." As the Court held in claim construction, whether the processor can access external program memory is the crucial distinguishing feature between the claimed microcontroller-based systems and the prior art microprocessor-based systems. (Markman Order 8.) Therefore, Judge Love correctly concluded that Gemalto's DOE argument fails because whether the location of all program memory is on chip (microcontroller) or off chip (the microprocessors in the accused devices) cannot be an "insubstantial difference" as required by the Federal Circuit standard articulated in *Aquatex Industries*. (Report 10.)

As explained above with respect to literal infringement, cache memory cannot be "all program memory" because it cannot store all program instructions temporarily, and also cannot store any program instructions permanently. Gemalto has not disputed—and cannot dispute—this fact. Therefore, regardless of the percentage of program instructions that temporarily pass through the cache memory of the accused devices, the microprocessors in those devices cannot contain all program memory or anything equivalent to it. (Report 10.)

B. Gemalto Presents No Evidence to Support its Equivalents Argument

Even assuming Plaintiff's doctrine of equivalents theory addressed the correct issue (which it does not), Plaintiff still fails to provide any evidence that a CPU accessing instructions from the cache memory 100% of the time is "insubstantially different" to accessing instructions from the cache 97% of the time. Plaintiff's undisclosed expert, Mr. Andrus, provides no such opinion. Neither does its disclosed expert Dr. Smith, who opines only that a microcontroller storing programs in off- and on-chip memory is the same as it storing it fully in on-chip memory—Plaintiff's previous, but now discarded, equivalents theory. (Smith Decl. ¶¶ 14, 16; *see* Mot., 19–21, Obj. 28.) Thus, while Gemalto argues Judge Love ignored the opinion of its expert on DOE (Obj. 6), Gemalto did not offer any expert testimony (or any other evidence) demonstrating that having 97% of program instructions pass through the cache memory is equivalent to having all program instructions permanently stored in program memory. *Texas Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1567 (Fed. Cir. 1996) ("[A] patentee must still provide particularized testimony and linking argument as to the 'insubstantiality of the differences' between the claimed invention and the accused device or process, or with respect to the function, way, result test when such evidence is presented to support a finding of infringement under the doctrine of equivalents."); *see also Aquatex Industries, Inc.*, 479 F.3d at 1328-29 (affirming summary judgment of non-infringement under DOE where plaintiff failed to provide "particularized testimony and linking argument as to the 'insubstantiality of the differences'"), *GTX Corp. v. Kofax Image Prod. Inc.*, 571 F. Supp. 2d 742, 753 (E.D. Tex. 2008) (granting summary judgment non-infringement under DOE where plaintiff's expert report "fails to raise a genuine issue of fact as it is a "conclusory expert statement devoid of facts upon which the conclusions were reached.").

C. Gemalto's Objections Fail to Demonstrate Any Error in Judge Love's Rejection of its Equivalents Argument.

Through carefully selected wording, Gemalto implies that the cache memory on the accused devices stores 97% of all program instructions all the time. (Obj. 28.) The undisputed facts show this is not correct. As Judge Love correctly found, small portions of the program instructions temporarily pass through the cache memory. (Report 6-7.) Because cache memory is volatile and thus empty when the device is powered off, it is unable to permanently store *any* program instructions. (Report 6.) Accordingly, the cache memory contains *no* functionality for “permanently holding all program instructions necessary for execution of the compressed application” as required by the Court’s claim construction. (Report 5.)

Gemalto thus argues that the fact that required instructions may be temporarily found in the cache 97% of the time is equivalent to permanently storing 100% of program instructions at a single time. Judge Love was not fooled by Gemalto’s apples to oranges comparison, noting that even if Gemalto could show that required instructions were temporarily found in the cache 100% of the time, that significantly larger “cache” memory still could not permanently store program instructions and thus could not comprise “all program memory.” (Report 10.) Gemalto’s Objections make no attempt to address cache memory’s inability to permanently store program instructions.

D. Plaintiff's Cited Caselaw Is Inapposite.

Plaintiff misquotes inapposite case law in an attempt to convince this Court that summary judgment is inappropriate. Gemalto’s cited cases, *Deere & Co. v. Bush Hog, LLC* and *Brilliant Instruments, Inc. v. GuideTech, LLC*, do not alter Federal Circuit precedent that summary judgment of a plaintiff’s DOE theory is appropriate where plaintiff cannot show an insubstantial difference or fails to meet the “function, way, result” test. While *Deere* does caution that courts

should avoid a “binary” analysis of whether a claim is merely present or absent when evaluating a plaintiff’s DOE theory substantially similar to literal infringement, *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1356 (Fed. Cir. 2012), Judge Love properly held that Gemalto’s DOE theory would require the Court to ignore the distinction between microcontrollers and prior art microprocessors entirely. Especially in light of the applicants’ repeated statements distinguishing microcontrollers from microprocessors, no reasonable jury could conclude that this is an insubstantial difference. (Report 10.)

Gemalto incorrectly claims that *Deere* holds that vitiation can only occur when the proposed equivalent is the opposite of the claimed item. (Obj. 8.) The Federal Circuit in *Deere* did hold that claim vitiation occurs where “the accused device contains the antithesis of the claimed structure” but did not hold this is the only way a theory of equivalents can vitiate a claim. *Deere & Co.*, 703 F.3d at 1356. Instead, the Federal Circuit upheld the standard applied by Judge Love: “the proper inquiry is ... asking whether an asserted equivalent represents an ‘insubstantial difference’ from the claimed element or ‘whether the substitute element matches the function, way, and result of the claimed element.” (Report 9 (citing *Deere & Co.*, 703 F.3d at 1356).) Therefore Judge Love’s analysis is in line with *Deere*, and Gemalto’s objection fails.

The facts of *GuideTech* are also clearly distinguishable from the instant case. While the Federal Circuit in *GuideTech* held that the location of certain capacitors at issue in that case *could* have made an insubstantial difference, it did so in part because the district court in *GuideTech* did not find, as Judge Love did here, that the location of those capacitors was crucial to distinguishing the claimed invention from prior art. *Brilliant Instruments, Inc. v. GuideTech, LLC*, 707 F.3d 1342, 1348 (Fed. Cir. 2013). Additionally, the plaintiff’s expert in *GuideTech* provided a “detailed application of the function-way-result test to the claim element and

allegedly equivalent feature.” *Id.* Again, here, Gemalto’s expert wholly failed to opine on Gemalto’s 97% DOE theory, as Defendants previously noted in their summary judgment briefing. (Reply 9.)

Finally, Gemalto attempts to resurrect its previously-discarded theory that the location of the program memory “cannot be case dispositive” and claims that *GuideTech* supports this conclusion. (Obj. 29.) However, as explained above, *GuideTech* made no such sweeping proclamation that the location of an element in an accused apparatus can never constitute an insubstantial difference. Gemalto’s argument further ignores that this Court’s claim construction “establishes a specific structural requirement that defines an integrated circuit card as used in the patents-in-suit. To permit that requirement to be satisfied based not on where the memory structure permanently holding the program instructions (*i.e.* ‘all program memory’) is located, but rather on where the program instructions can be temporarily held, reads the integrated circuit card limitation, as construed by the Court, completely out of the claim.” (Report 10.) Therefore, Judge Love was correct in concluding that Plaintiff’s DOE theory “cannot be an insubstantial difference” as a matter of law and correctly recommended summary judgment of non-infringement. *Id.*

III. AS JUDGE LOVE CORRECTLY FOUND, THE ACCUSED PRODUCTS DO NOT INDIRECTLY INFRINGE THE CLAIMS

Gemalto asserts that Defendants indirectly infringe claim 3 of the ‘727 Patent. Claim 3 requires a “programmable device,” which the Court construed as “a single semiconductor substrate integrating electronic circuit components that includes a central processing unit and all program memory making it suitable for use as an embedded system.” (Markman Order 17.)

“Indirect infringement requires a showing of direct infringement.” (Report 11.) Since there is “no direct infringement of the patents-in-suit, summary judgment is also proper with

respect to Gemalto's indirect claims." (*Id.*) More specifically, since the "all program memory" limitation of the patents-in-suit are not directly infringed, the claims cannot be indirectly infringed either. (*Id.* n. 3.) Gemalto does not assert that its indirectly infringement claims should survive separate from its direct infringement claims. Accordingly, summary judgment as to claim 3 of the '727 Patent is appropriate.

IV. PLAINTIFF'S EXPERT DECLARATIONS DO NOT CREATE A GENUINE ISSUE OF MATERIAL FACT

Plaintiff argues that its proffered expert's testimony, which merely repeat Plaintiff's flawed arguments in its Opposition, creates an issue of fact. (Obj. 6, 23.) However, these declarations fail to create issues of material fact for the reasons discussed above. (*See, e.g.,* Smith Decl. ¶ 4 ("The instruction cache is the only memory from which the CPU executes (i.e., runs) program instructions."); *id.* ¶ 12.) That Plaintiff has found someone willing to echo its arguments does not defeat summary judgment. *Invitrogen Corp. v. Clontech Labs*, 429 F.3d 1052, 1080 (Fed. Cir. 2005) ("A party does not manufacture more than a merely colorable dispute simply by submitting an expert declaration . . . [T]here must be some foundation or basis for the opinion."); *Novartis Corp. v. Ben Venue Labs*, 271 F.3d 1043, 1050-51 (Fed. Cir. 2001) ("a party does not meet this evidentiary threshold merely by submitting the affidavit of an expert who opines that the accused device meets the claim limitations").

CONCLUSION

Gemalto's objections should be rejected and Judge Love's Report and Recommendation should be adopted.

Dated this 29th day of March, 2013.

By /s/ David A. Perlson

QUINN EMANUEL URQUHART &
SULLIVAN, LLP
Charles K. Verhoeven
charlesverhoeven@quinnemanuel.com
David A. Perlson
davidperlson@quinnemanuel.com
Sean Pak
seanpak@quinnemanuel.com
50 California Street, 22nd Floor, San Francisco,
California 94111-4788
Telephone: (415) 875-6600
Facsimile: (415) 875-6700

Michael E. Jones
State Bar No. 10929400
mikejones@potterminton.com
Allen F. Gardner
State Bar No. 24043679
allengardner@potterminton.com
POTTER MINTON, P.C.
A Professional Corporation
110 N. College Ave., Suite 500
Tyler, Texas 75702
Tel: (903) 597-8311
Fax: (903) 593-0846

Attorneys for Defendants HTC Corporation, HTC
America, Inc., Exedea, Inc., Samsung Electronics
Co., Ltd., Samsung Telecommunications America
LLC, Motorola Mobility, Inc., and Google Inc.

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who are deemed to have consented to electronic service are being served this 29th day of March, 2013, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3).

By /s/ Antonio Sistos